97

COLONY OF MAURITIUS.

REPORT

OF THE

DIRECTOR, MEDICAL & HEALTH DEPARTMENT

FOR THE YEAR

1900.

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THE DIRECTOR, MEDICAL AND HEALTH DEPARTMENT TO THE HONORABLE THE COLONIAL SECRETARY.

C/No. 1110.
—

Medical and Health Department,
7th. May, 1901.

The Honorable
The Colonial Secretary.

Sir,

I have the honour to submit for the information of His Excellency the Governor and for transmission to the Right Honorable the Secretary of State, the Medical Report on the health and sanitary condition of Mauritius for the year 1900, together with Returns, &c., appended thereto.

I have, &c.,

E. CHASTELLIER, M. D., Edin.,

Director,
Medical and Health Department.

REPORT.

I. STATISTICS OF POPULATION, 1900.

The estimated population for the year again shows a slight advance over that of 1899. The figures are 383,085 for 1900, 379,586 for 1899 and 378,872 for 1898.

The increase in 1900 was particularly among the Indian population, and in a lesser degree, among the Chinese. There was a slight falling off among the General population.

The increase in the Indian population is attributable to the resident members thereof having been proportionately increased by new arrivals,—for, against 2,067 Emigrants, there were 4,397 Immigrants,—the difference being 47 o|o.

The birth-rate of the year was 37.8 per thousand against 39.4 in 1899 and 36.3 in 1898. This slight falling off occurred chiefly in the General population ; the ratio being 36.8 for 1899 and 34.1 for 1900.

The death-rate tho' exhibiting a slight falling off as compared with 1899 remains high. It was 35.8 per thousand in 1900, 37.9 in 1899 and 31.9 in 1898.

Plague was responsible for 593 deaths, The rate of mortality from this disease was therefore 1.5 per thousand of the total population of the Island and its percentage to total deaths was 4.3 o|o.

II. Prevailing Diseases.

The plague outbreak of 1899 abated about the middle of April, assumed an epidemic form in July, which extended till the month of January 1900,

A fresh outbreak occurred in August 1900 which had shown little sign of abatement by December 1900.

There were altogether 796 cases in the Colony during 1900, with 593 deaths. Forty-four cases were discovered among admissions in the Public Hospitals.

A separate report will be submitted on the incidence of plague in the Colony.

The Island remained free from any other epidemic or highly contagious diseases.

Béri-béri. Two cases are, for the first time, returned as having been treated in 1900. There is reason to believe that the disease denominated by some of our local Practitioners as acute anæmic dropsy is in reality, a form of Béri-béri and has been met with for years past. It has not however assumed anything like an epidemic character since 1879.

The principal sufferers are the Chinese. The disease assumes principally the dropsical type (*beriberia hydrops*). The cases that have come under notice have been so few, that no opportunity has been afforded us in determining the particular conditions (climatic and others) which foster its development here.

Influenza shows a marked falling off; the figures are 490 cases for 1900 against 783 in 1899 and 726 in 1898. The death-rate also decreased from 5.10 o/o in 1898 to 4.47 o/o in 1899 to 3 o/o in 1900.

Enteric Fever. The cases treated in hospital show a falling off, but this is unfortunately not a criterion as to the prevalence of the disease in the Colony. Eighteen cases only (including seven landed from a British man-of-war) were admitted into public hospitals, but there were altogether seventy-two cases in the Colony.

The disease is making slow but sure progress in the higher and damp localities.

Soil pollution, contaminated water supply— partly due to extensive manuring of the fields with human excreta in the vicinity of water courses— and defective sanitary arrangements are, as of yore, the principal factors in its distribution. Climatic conditions do not appear to exert any direct influence in its diffusion.

Dysentery occurred in a sporadic form, and at no time assumed an epidemic character. The number of cases remained almost stationary in 1899-00, but a very high death-rate (22 o/o) obtained during the year under review at the New Central Prisons, Beau Bassin, although fewer cases were admitted comparatively with the year previous.

The saline treatment first adopted by the Police and Prison Surgeon in the Port Louis Jail about 3 years ago continues to give satisfactory results in the acute form of the disease.

Malarial Fever. The classification of the different types of intermittent fever as returned is not satisfactory as yet, but nevertheless shows a decided improvement upon that of the previous year, 1899. The recent works of modern writers on the subject, principally those of Manson and Celli, have not been overlooked and more attention will henceforth be given to obtain a more accurate differentiation of the types prevailing in the Island.

There was, strictly speaking, no marked recrudescence of the disease during the year.

It prevailed, however, as usual with some intensity, during the months of February to April.

The correlation between heavy rainfall and incidence of malaria was once more thus exemplified. The rainfall which remained uniformly low during the whole of the year attained its maximum in March, viz : 9.15 inch compared with an average of 2.60 for each of the other months of the year.

The year under review was throughout a very dry one, the rainfall ranging from 41 to 86 per cent, below the average. To this circumstance may, therefore, be attributed the comparative decrease in malaria.

A fact worthy of note is that rainfall in Mauritius appears to be the factor which causes the fluctuations in the prevalence of malaria.

The concurrence of the other conditions, such as high temperature, moisture and wind do not appear to have any special influence in determining an incidence of the disease.

The latest theories with regard to the connection existing between malaria and a certain species of mosquitoes have been verified in this Colony. Steps are being taken to minimize, in all public hospitals, the chances of infection by anopheles.

Government have also been moved to provide the necessary funds for the suppression of pools, marshes and other similar breeding grounds of the malaria-disseminating insect. Indeed, it is a matter for consideration whether existing sanitary enactments should not be amended with a view to including within the term *nuisance* all unnecessary puddles and pools whether situated on or about the premises or elsewhere.

Leprosy. Twenty cases only (6 tubercular and 14 anæsthetic) were temporarily admitted in Public and Prison Hospitals prior to their transfer to the Leper Asylum, which was invariably done in cases of prisoners or patients willing to be sent to that Institution. Others had simply to be discharged to go home as there is no legal power to segregate even pauper lepers in this place.

The Asylum in question is a charitable Institution subsidized by, but not under the direct control of, Government.

No reliable figures are forthcoming as to the number of lepers in the Colony, — although it is hoped this information may shortly be expected from the Census Commissioner's Report,— but I do believe that leprosy is on the increase.

The following transcript from a communication addressed to Government on the subject in March 1901 explains the position of affairs.

* * *

" While on this subject, I beg to be allowed to state that " the question of the communicability of leprosy whether " by direct or indirect means is one that has occupied my atten- " tion for a number of years past. I have always held the " opinion, — an opinion based upon facts observed during my " 30 years practice, — that leprosy was contagious. Indeed, " instances are not wanting of healthy Europeans having " developed leprosy after emigrating to a leprous Country, or " of leprosy making its appearance in a hitherto immune Coun- " try after the immigration of foreigners. The immigration of " negroes to South America and of the Chinese to the Sandwich " Islands, afford such examples. "

" I had occasion in 1894 and 1895 to report on the manner " in which the *St. Lazare* Asylum was managed ; in the last " report, (No. 183 of 11.4.1895) I suggested that steps should " be taken to remove the Asylum to a healthier and more " isolated situation than *St. Lazare*, pending the introduction " of a Law providing for the compulsory segregation of lepers.

" In my annual report for 1897, I again referred to the subject " and pointed out that it must sooner or later force itself upon " the attention of Government.

" Having had cognizance, in March 1898, of the conclusions " of the International Conference on Leprosy held at Berlin in " October 1897, I availed myself of the authoritative statements " then made to urge upon Government the desirability of at " least introducing a law to provide for the isolation of the " Asylum patients, as a means of confining the evil within " certain bounds. Although leprosy is of more common " occurrence, in this Colony, among the poorer classes of the " community, yet it cannot be said that it is confined to that " class alone, for the disease is conspicuous among members of " the well-to-do classes.

" As pointed out in para : 16 of the Secretary of State's " Circular Despatch, there is no question that it (leprosy) is " fostered or ameliorated according to the conditions of life " obtaining in any particular community, so that I beg to " reiterate the recommendation made in my report of April " 1898, viz: *without actually advocating rigid segregation, some-* " *thing should be done whereby once admitted into an Asylum,* " *the patient should (while being allowed complete freedom with-* " *in the Asylum precincts) be subjected to certain discipline in* " *so far as communication with the outer world is concerned.* "

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It may be added that the question has been referred by Government to the " Société Médicale " for an expression of opinion thereon by the Members of the Medical Profession in the Colony.

Cerebro-Spinal Meningitis. The disease, i. e., true epidemic cerebro-spinal fever has not previously been reported to exist in this Colony. The two cases returned are : 1o. A newly arrived Indian Immigrant and 2o. a laborer of a Quarantine Station.

The former developed the disease a short time after joining his estate and the latter contracted it at the Quarantine Station, where it prevailed in a limited degree among some coolies recently introduced from Calcutta.

The disease did not assume an epidemic form among the immigrants at the Quarantine Station, owing to timely measures of segregation and disinfection having been taken.

Respiratory System. Diseases of this class show a slight increase. This is due to phthisis,—a disease which is making sad havoc among the labouring classes.

Among diseases of the *Urinary System.* Bright's disease occupies a prominent position. Some Practitioners attribute this increase to the morbific influences induced by *Influenza,* but as, in addition to a large number of other agencies, malaria also contributes towards its production, influenza cannot be implicated to the exclusion of the other causes.

Anchylostomiasis. No case is returned as having been admitted to any hospital. The disease, however, exists in a part of the Colony at least, where it was introduced by the Indian Immigrants. It would appear that it has not made much headway, for irrespective of the fact that no case was detected in any of our public hospitals, the number of cases of anæmia and debility treated has remained almost stationary.

III. RELATIVE MORTALITY IN THE DIFFERENT SEASONS.

The Registrar General's yearly returns not being ready at the time of writing this report, no reliable data are forthcoming for purposes of comparison.

According to hospital statistics, the mortality was greater during the second quarter of the year for general diseases, foremost among which was fever.

Such was also the case in 1899.

IV. METEOROLOGICAL CONDITIONS OF THE SEASONS AND THEIR PROBABLE EFFECT WITH REGARD TO SICKNESS.

January to April may be set down as the unhealthiest months of the year in regard to the predominating disease, e. g : malaria.

This is in manifest proportion with the rainfall and the accompanying climatic condition of the season.

Indeed, the unhealthy period has been found to extend well-nigh to the month of May, whenever the rainy season has been prolonged till late in the year.

The high range of temperature which generally obtains from January to March and sometimes April contributes but little towards the lethal influence exerted by heavy and late rainfalls, in so far as malaria is concerned.

Bowel complaints are also more common during the first quarter of the year.

The causes at work are sustained high temperature and extensive pollution of the water supply owing to the amount of refuse and dirt of every possible description which are washed into the springs and streams by heavy rains. Coupled with this is the carelessness and apathy of many of those who derive their supply from the " Mare-aux-Vacoas ".

This source of drinking water is protected against specific pollution, but has unfortunately not been as satisfactory as could have been expected throughout the year.

In dry and hot weather and when the level of the water in the " Mare " is low, the filtered water emits a disagreeable smell which, though it does not apparently impart any noxious property to the liquid, is a fruitful source of complaint and forms one of the principal objections to the general use of that water by the population of Plaines Wilhems.

It is an axiom in this Colony that a heavy rainfall is synonymous of high rate of mortality, but if the public health benefits by a dry season, inversely the public wealth suffers serious prejudice by a prolonged drought. Were it not for the prevalence of the cyclonomic disturbances (which sometimes prove to be unwelcome visitors) during the first quarter of each year, Mauritius would be comparable to a barren Sahara.

V. Recurrence of particular diseases during the year.

With the exception of plague and malarial fevers, there has been no particular incidence of other diseases during the year under review.

Plague continued to follow a course very similar to that of the year previous. The most important factor in its distribution was, as usual, the rat.

Migration of these rodents, when plague stricken, was a fruitful source of infection to human beings.

The transmission of the disease from man to man has not been proved.

Next to rats, the other intermediary for the dissemination of the disease is infected bedding and clothing.

VI. General sanitary condition of the Colony.

Comparatively speaking, this was fairly good judging from Hospital Statistics. The general Statistics of the Colony not having yet been compiled, I am unfortunately precluded from expressing a positive opinion on the subject.

Much has still to be done in the Chief Town, Port Louis, to place it in anything like a suitable sanitary condition.

The underground drainage in the Western Suburb of the Town has been completed, but will not, I am afraid, be extended to the other parts of the Town.

The water supply, scavengering service and night soil service (the latter under the control of this Department) continue, I regret to say, to be defective.

Although there are certain congested areas in Port Louis, yet the Town cannot be said, on the whole, to be objectionably overcrowded. The reverse is often the case. Sanitation in all its branches is interfered with owing to the irregular agglomeration of scattered buildings in the suburbs, with intermediate waste lands and unoccupied lots.

As regards the night soil service (hand removal system) attempts are being made to improve the manner in which the service is carried on.

Unfortunately the only proper method known to science, e.g.: water carriage, has had to be postponed for pecuniary reasons.

It is to be hoped that the Municipality may find its way to continue the canalization of some of the streams running through the Town into the sea. As pointed out in the previous yearly report, (1899) much had been done by Government in that direction. It is also desirable that large intercepting channels be built with a view to affording an easy outlet to storm waters and thus prevent the flooding of the lower part of the Town.

What is stated about Port Louis applies with greater force to some of the rural townships,—Curepipe in particular.

This latter place has hitherto been considered as the healthiest locality in the Island, but there are indications pointing to its losing its former salubrity and becoming a hot-bed of enteric fever.

A yearly increase is taking place there in the number of indigenous cases.

Malaria has also quite recently established itself in that locality.

This state of matters, which was predicted by Mr. Chadwick, was to be anticipated, for, with the exception of a purer water supply having been obtained and means of inter-communication improved upon, hardly any remedial measures have been applied to the other drawbacks which he called attention to.

Many other works, mostly of an ornamental character, have been taken in hand but nothing has been done in regard to the numerous marshes, the absence of proper drainage, soil contamination by liquid sewage and structural defects in certain parts of the Town inhabited by the poorer classes.

The state of matters obtaining at the Beau Bassin-Rose Hill township is, if anything, much worse.

Here a collection of insanitary huts—hovels would be a more appropriate term,—are to be met with in the centre of the Township, more especially at Beau Bassin. Proper drainage is an unknown luxury. Quite recently, a scheme of surface drainage on a small scale was taken in hand, but the recommendation of the Sanitary Officers, in so far as the construction of the drain is concerned, have been totally disregarded. An old fashioned flat-bottomed drain with a rugged surface, without a proper fall has been made and it is doubtful whether the evil which this drain was intended to remedy will be done away with. The Board of Commissioners for the Township are not, however, responsible for this as the work was carried out by Government.

Another serious evil with which this Township, and indeed nearly the whole Colony is threatened, is the creation on a large scale of free Indian villages. Several sugar estates are parcelling out their lands, which are bought up by the Indians for the cultivation of sugar canes. The straw-mud huts are seen cropping up everywhere and with them all the concommittant evils of insanitary areas and habitations.

The following extract from a report addressed to Government at the beginning of this year, after the cyclone of January 1901, will serve to illustrate what is stated above :

" I am of opinion that advantage be taken to prohibit the " rebuilding of straw huts in the limits of that part of Beau " Bassin-Rose Hill already pointed out.

" At first sight it may appear to be a harsh measure to " prevent poor people from rebuilding their huts, but as these " hovels have been and will ever remain a standing menace to " the community at large, I consider that on sanitary grounds, " Government should not hesitate a single moment to have the " law observed in that respect. There are certain parts within " the town of Beau Bassin-Rose Hill where the building of " straw huts is permitted. I submit that it is just as easy for " those who are without shelter to build their huts in the " outer zone as in the inner one. The Chairman of the Board " himself points out that many of the huts in question have " been condemned as unfit for human habitation.

" To authorize their reconstruction, therefore, would be " tantamount to undoing what little has been done in the way " of sanitation. I would point out that if a policy of *laisser-" aller* be adopted here, Government could not consistently put " into effect the decision concerning free Indian villages. No " positive hardship (except perhaps a pecuniary one) will be " inflicted upon those whose huts have been blown down.

" There are plenty accommodation to be found in properly " constructed lodging-houses at Beau Bassin—Rose Hill."

* * * *

I regret to add that this recommendation has not been acted upon ; an idea can thus be formed of the difficulties with which the Sanitarian is beset in endeavouring to remove insanitary conditions.

There are some other villages which are growing into importance and where the Sanitary Regulations will need being enforced. In those districts where Sugar Estates exist, the bulk of the population is under proper sanitary control. Much more, the Estate laborers are, as a rule, provided with first class hospital accommodation and medical care.

The occurrence of any infectious disease among the estate population can, therefore, be always controlled. The reverse obtains among the residents of the free villages, and as they seldom, if ever, call in medical aid, it happens that the incidence of any disease in their midst is only brought to light after it has taken a certain hold in the locality.

VII. Vaccination.

The inhabitants may be said to be tolerably well protected by vaccination, but it is desirable that the oft deferred law concerning re-vaccination at stated periods be introduced.

There were 9,967 successful vaccinations performed by Public Vaccinators during 1900 — this number does not include vaccinations performed by Private Medical Practitioners.

It is to be regretted to have to state again that the quality of glycerinated lymph received, did not give full satisfaction. Lymph from other Vaccine Institutes has been tried, but with no better results; the causes of these failures are being investigated.

As a precautionary measure, persons arriving in this Colony from places infected with small-pox are, before being allowed to land, vaccinated or re-vaccinated, if they have not undergone that operation during the preceding 5 years.

VIII. Public Hospitals and Dispensaries.

There has been no change in the number of Institutions at work during the year.

Pamplemousses district remained without a Public Hospital, as the one in course of construction at *Montagne Longue* is not yet ready.

The Port Louis Civil Hospital is still located in the Royal College premises and the buildings answer the purpose admirably. It is unfortunate, however, that the question of the permanent situation of the Civil Hospital still remains an open one, but it is to be hoped that it may be settled before long by building a new College at Rose Hill.

The work done at the Civil Hospital compares favourably with that of the year previous. A small laboratory has been fitted up there whereby microscopical and bacteriological examinations are facilitated.

The work done at the other Public Hospitals has also been on a par with those of previous years. In addition to the 16,272 cases shown in the accompanying Nosological Returns, there were 58,352 out-door patients who received care and advice at the Public Dispensaries.

IX. Departmental.

Ill-health compelled me to temporarily relinquish charge of my office from April to August 1900. During my absence on leave to Europe, Dr. Lorans had charge of the Department, and it affords me much pleasure to place on record the very able manner and the loyal spirit in which he conducted these duties.

The severe strain of the year previous (1899) did not fail to tell upon him also, so much so that he, on my return, proceeded to Europe for some relaxation.

I can but repeat what I stated in my Report for 1899 concerning the hard work which the Members of my staff had to perform during the second plague epidemic of 1900. They all afforded me unstinted and valuable assistance.

MEDICAL.

Annexure A.
Annexure B.

A report from Dr. Rouget, the able Police and Prison Surgeon of Port Louis, is printed as appendix, at the end of the Nosological Returns; also some notes from the Medical Superintendent of the Lunatic Asylum on a case of multiple abscesses occurring after dysentery and intermittent fever.

E. CHASTELLIER, M.D., Edin.,

Director,

7th. May, 1901.

Medical and Health Department.

RETURN OF THE STATISTICS OF POPULATION FOR THE YEAR 1900.

	General population.		
	Europeans, Whites, Africans, Mixed and Coloured.	Indians.	Chinese.
Number of inhabitants on 31st. December 1899	114,841	261,739	3,079
„ Births during the year 1900	3,915	10,517	58
„ Deaths during „ 1900	4,100	9,424	167
„ Immigrants „ 1900	1,646	4,397	826
„ Emigrants „ 1900	1,605	2,067	570
Number of inhabitants on 31st. December 1900	114,697	265,162	3,226
Increase or	....	3,423	147
Decrease	144	....	....

Race or nationality should be specified, as nearly as possible, in accordance with the above model.

METEOROLOGICAL RETURN FOR THE YEAR 1900.

	Temparature at Royal Alfred Observatory.						Rainfall.		Winds.		REMARKS.
	Solar Maximum.	Minimum on grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
										miles per hour.	
January ...	*153.1	*62.3	*92.7	*64.8	27.9	79.8	3.35	† 75.1	E. S. E. to E.N.E.	8.8	Rainfall 52 o/o below average.
February ...	152.9	65.1	91.2	67.2	24.0	79.5	4.79	81.4	S.E. to E.	7.7	Wind velocity 3.5 miles below average.
March ...	156.6	61.3	90.4	64.2	26.2	78.1	9.15	81,4	S.E. by E. to E.S.E.	8.7	„ „
April ...	146.2	59.3	88.6	63.1	25.5	76.4	3.16	82.2	E. S. E.	10.1	Rainfall 41 o/o below average.
May ...	142.7	52.8	87.6	57.7	29.9	73.8	1.36	78.7	S. S. E.	9.7	Rainfall 68 o/o below average.
June ...	137.6	43.3	85.8	47.6	38.2	69.4	1.33	76.9	S.E. by S. to E.S.E.	9.2	
July ...	135.3	48.2	81.6	52.7	28.9	66.9	2.29	77.3	S.E. by E. to E.S.E.	10.9	
August ...	141.7	45.3	83.2	48.3	34.9	67.9	1.79	73.6	E. S. E	10.0	
September...	143,2	48.0	85.0	51.2	33.8	69.4	0.48	73.9	E. S. E.	10.1	Rainfall 66 o/o below average.
October ...	146.7	54.0	86.2	56.7	29.5	71.4	1.59	72.6	E. S. E,	10.5	
November....	146.2	52,2	90.5	55,7	34.8	76.2	1.31	67.9	E.S.E. to E. by N.	10.0	
December ...	152.3	60.5	93.5	63.5	30.0	78.6	0.68	70.4	E. by N.	10.2	Rainfall 86 o/o below average.
For the year.	156,6	43.3	93.5	47.6	45.9	74.0	31.28	76.0	E. S. E.	9.7	

* Absolute values.

† Mean of 6+15 h.

RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

	Diseases.	* Remaining at end of 1899.	Yearly-Total.		† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
			Admissions.	Deaths.			
GENERAL DISEASES.	Small Pox	......	......	......	......	......	
	Measles	......	......	......	......	......	
	Typhus	......	......	......	......	......	
	Dengue	......	......	......	......	......	
	Cholera	......	......	......	......	......	
	Yellow Fever	......	......	......	......	......	
	Beriberi	......	2	1	2	......	
	Yaws	......	......	......	......	......	
	Influenza	19	471	15	490	10	
	Diphtheria	......	1	......	1	......	
	Febricula	......	290	......	290	......	
	Enteric Fever	......	18	4	18	1	
	Dysentery	14	616	140	630	13	
	Plague	......	44	25	44	......	
	Malarial Fever :—						
	(a) Intermittent Quotidian	24	1,448	39	1,472	24	
	Tertian	2	236	4	238	3	
	Quartan	1	31	1	32	4	
	Irregular	1	281	5	282	8	
	Type undiagnosed	21	698	22	719	26	
	(b) Remittent	5	134	5	139	5	
	(c) Pernicious	......	20	8	20	1	
	Erysipelas	2	47	7	49	6	
	Pyæmia	......	6	4	6	......	
	Septicæmia	......	7	5	7	......	
	Tetanus	......	14	9	14	......	
	Tubercle	2	36	13	38	7	
	Gonorrhœa	13	157	......	170	6	
	Hydrophobia	......	......	......	......	......	
	Scurvy	......	......	......	......	......	
	Parotitis	......	58	......	58	1	
	Pertussis	......	86	1	86	......	
	Rheumatic Fever	......	22	......	22	......	
	Rheumatism	9	437	......	446	18	
	Gout	......	......	......	......	......	
	Leprosy :—						
	(a) Tubercular	......	6	......	6	......	
	(b) Anæsthetic	......	14	......	14	......	
	Syphilis :—						
	(a) Inherited	5	53	3	58	6	
	(b) Primary	3	96	1	99	6	
	(c) Secondary	5	75	1	80	5	
	(d) Tertiary	2	75	......	77	5	
	Carried over	128	5,479	313	5,607	155	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal College of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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* *i.e.*, the year previous to that for which the Return is made.
† " Total cases treated " will, of course, include those remaining in Hospital at the end of the previous year.
‡ The figures in this column to be carried on to the next year's Return.

RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

			Diseases.	* Remaining at end of 1899.	Yearly-Total.		† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
					Admissions.	Deaths.			
			Brought forward...	128	5,479	313	5,607	155	
GENERAL DISEASES			Alcoholism	......	17	......	17	......	
			Delirium Tremens	......	4	1	4	......	
			Anæmia	12	302	23	314	5	
			Debility	16	467	78	483	19	
			Diabetes Mellitus	......	10	1	10	......	
			Diabetes Insipidus	......	10	......	10	......	
			New Growth:—						
			(a) Non Malignant	1	61	......	62	1	
			(b) Malignant	1	41	11	42	2	
	OTHER DISEASES.		Malarial Cachexia	1	82	1	83	1	
			Rubeola	......	10	......	10	......	
			Varicella	......	2	......	2	......	
			Puerpera	......	1	......	1	......	
			Rickets	1	3	......	4	......	
			Myalgia	10	22	......	32	5	
			Oldage	2	75	22	77	......	
			Hæmophylia	......	1	1	1	......	
	NERVOUS SYSTEM	Section 1	Neuritis	......	......	......	......	......	
			Meningitis	......	27	19	27	......	
			Myelitis	......	26	12	26	......	
			Hydrocephalus	......	......	......	......	......	
			Encephalitis	......	6	......	6	......	
			Congestion of Brain	......	8	4	8	......	
			Abscess of Brain	......	1	1	1	......	
			Cerebral Hæmorrhage	2	18	9	20	1	
		Section 2	Paralysis	5	40	2	45	3	
			Epilepsy	3	53	1	56	2	
			Chorea	......	2	......	2	......	
			Neuralgia	7	169	......	176	6	
			Hysteria	......	13	......	13	......	
		Section 3	Idiocy	8	11	1	19	8	
			Mania	193	103	12	296	205	
			Melancholia	7	13	3	20	10	
			Dementia	122	17	11	139	116	
			Délusional Insanity	52	11	......	63	56	
			General Paralysis	2	5	4	7	......	
			Carried over	573	7,110	530	7,683	595	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal College of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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* *i.e.*, the year previous to that for which the Return is made.

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‡ The figures in this column to be carried on to the next year's Return.

RETURN OF DISEASES AND DEATHS IN 1900 AT THE PUBLIC HOSPITALS, MAURITIUS

		Diseases.	*Remaining at end of 1899.	Yearly-Total.		†Total cases treated.	‡Remaining at end of 1900.	Remarks.
				Admissions.	Deaths.			
		Brought forward... ...	573	7,110	530	7,683	595	
LOCAL DISEASES	Nervous system	Other diseases: Meningitis Cerebro-Spinal	......	2	2	2	......	
		Mollities Cerebri ...	......	6	4	6	1	
		Tabes Dorsalis	......	2	......	2	1	
		Apoplexia	......	6	5	6	......	
		Hemiplegia	......	8	......	8	......	
		Paraplegia	......	1	......	1	......	
		Other diseases§	......	19	1	19	......	§ Cephalalgia, &c.
	Diseases of the Eye :—							
		Conjunctivitis	6	89	......	95	2	
		Keratitis	1	31	......	32	1	
		Iritis...	......	11	......	11	......	
		Retinitis	......	7	......	7	1	
		Cataract	7	111	......	118	12	
		Ophthalmia Tarsi	2	27	......	29	1	
	Other Diseases	Staphyloma, Sarcoma, Meibonian Cyst, Myopia Panophthalmitis, &c.	...	27	......	27	1	
	Diseases of the Ear :—							
		Otitis	......	18	......	18	1	
		Necrosis	......	......	......	......	......	
		Abscess	......	5	......	5	......	
	Other Diseases	Otorrhœa...	......	4	......	4	......	
	Disease of the Nose :—							
		Epistaxis	......	11	......	11	......	
		Rhinitis	......	......	......	......	......	
	Other Diseases	Polypus Nasi	......	3	......	3	......	
	Circulatory System :—							
		Pericarditis	......	13	6	13	......	
		Hypertrophia Cordis	2	9	4	11	......	
		Valvular disease	15	146	53	161	9	
		Aneurism	......	4	1	4	......	
		Carried over... ...	606	7,670	606	8,276	625	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal College of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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‡ The figures in this column to be carried on to the next year's Return.

RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

	Diseases.	* Remaining at end of 1899.	Yearly-Total. Admissions.	Yearly-Total. Deaths.	† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
	Brought forward	606	7,670	606	8,276	625	
Other Diseases	Arterio-Sclerosis...	1	2	1	3	......	
	Arrhythmia Cordis	......	1	......	1	......	
	Arteritis	......	1	......	1	......	
	Endocarditis, &c.	......	5	1	5	......	
Local Diseases	Respiratory System:—						
	Asthma	11	186	3	197	4	
	Laryngitis	......	16	......	16	......	
	Bronchitis	36	991	13	1,027	20	
	Pneumonia	6	261	102	267	8	
	Pleurisy	......	40	4	40	1	
	Phthisis	22	650	167	672	37	
Other Diseases	Abscess of lungs...	......	1	1	1	......	
	Pneumothorax	......	1	......	1	1	
	Gangrene of lungs	......	1	......	1	......	
	Empyema...	......	3	2	3	......	
	Hæmoptysis and whooping cough	......	43	2	43	......	
Local Diseases	Digestive System:—						
	Stomatitis	1	91	4	92	1	
	Tonsillitis	......	33	......	33	2	
	Gastritis	......	73	......	73	1	
	Ulcus Ventriculi ...	......	......	......	......	......	
	Enteritis	4	139	10	143	6	
	Appendicitis	......	3	......	3	......	
	Hernia	......	37	......	37	......	
	Hæmorrhoids	3	75	......	78	4	
	Fistula in Ano ...	2	43	......	45	......	
	Hepatitis	2	83	7	85	1	
	Cirrhosis of Liver ...	......	61	17	61	4	
	Suppuration of Liver...	1	12	8	13	1	
	Biliary Calculus ...	......	3	......	3	......	
	Peritonitis	......	21	12	21	......	
	Diarrhœa §	7	409	34	416	15	
Other Diseases	Cancer of Liver	......	1	1	1	......	
	Stricture Œsophagus	......	1	......	1	......	
	Dropsy	......	6	......	6	......	
	Dyspepsia and Gastralgia ...	4	41	......	45	1	
	Constipation, Colics, Gingivitis, &c., &c....	......	69	......	69	......	
	Carried over	706	11,073	995	11,779	732	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal College of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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‡ The figures in this column to be carried on to the next year's Return.
§ When the cause is not known.

RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

	Diseases.	* Remaining at end of 1899.	Yearly-Total.		† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
			Admissions.	Deaths.			
	Brought forward...	706	11,073	995	11,779	732	
LOCAL DISEASES	Lymphatic System :—						
	Splenitis	9	41	1	50	5	
	Hypertrophia Splenis ...	2	122	1	124	3	
	Adenitis	2	59	......	61	5	
	Lymphangitis	......	69	1	69	......	
	Lymphangiectasis	1	5	......	6	1	
	Other Diseases. Lymphadenoma ...	......	7	......	7	......	
	Other Diseases. Bubo	......	7	......	7	......	
	Urinary Sytem :—						
	Nephritis	8	64	11	72	9	
	Pyelitis	......	......	......	......	......	
	Cystitis	8	61	8	69	2	
	Chyluria	......	6	......	6	......	
	Calculus	......	2	......	2	......	
	Other Diseases. Bright's disease ...	2	136	39	138	4	
	Other Diseases. Hæmaturia	......	25	......	25	......	
	Other Diseases. Pyonephrosis	1	11	......	12	......	
Male Organs.	Generative System :—						
	Stricture of Urethra ...	5	54	......	59	2	
	Prostatitis	......	6	......	6	......	
	Phimosis	......	11	......	11	......	
	Paraphimosis	......	13	......	13	1	
	Ulcus Vener. Molle ...	10	49	......	59	1	
	Hydrocele	1	86	......	87	1	
	Orchitis	1	64	......	65	1	
	Other Diseases. Hæmatocele ... Epididymitis ... Varicocele, &c. ...	......	47	......	47	1	
Female Organs.	Oöphoritis	......	5	......	5	......	
	Parametritis	......	4	......	4	......	
	Metritis	......	18	......	18	......	
	Endometritis	......	2	.....	2	......	
	Displacements of Uterus ...	......	4	......	4	......	
	Rupture of Uterus	......	......	......	......	......	
	Vaginitis	......	10	......	10	......	
	Amenorrhœa	1	9	......	10	1	
	Menorrhagia	......	5	......	5	......	
	Metrorrhagia	......	11	......	11	......	
	Abortion	......	5	......	5	......	
	Post partum Hæmorrhage ...	......	1	......	1	......	
	Mastitis	1	4	......	5	1	
	Abscess of Breast ...	......	10	......	10	......	
	Carried over ...	758	12,106	1,056	12,864	770	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal Collge of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

	Diseases.	* Remaining at end of 1899.	Yearly-Total. Admissions.	Yearly-Total. Deaths.	† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
	Brought forward	758	12,106	1,056	12,864	770	
LOCAL DISEASES. Other Diseases.	Parturition	......	76	......	76	... ..	
	Gestatio	......	11	......	11	1	
	Cancer of Uterus	......	12	4	12	......	
	Dysmenorrhœa, Leucorrhœa &c., &c.	......	4	......	4	1	
	Organs of Locomotion :—						
	Osteitis	......	18	3	18	......	
	Caries	......	3	......	3	......	
	Necrosis	2	14	1	16	1	
	Periostitis	......	10	......	10	......	
	Synovitis	......	15	......	15	1	
	Arthritis	......	33	1	33	1	
	Ankylosis	......	9	......	9	......	
	Ganglion	......	......	......	......	......	
	Other Diseases. } Lumbago	......	1	......	1	......	
	Cellular Tissue :—						
	Cellulitis	8	208	1	216	3	
	Gangrene	......	19	10	19	1	
	Elephantiasis	......	18	1	18	......	
	Abscess	2	202	......	204	6	
	Diseases of the Skin :—						
	Erythema	1	60	......	61	2	
	Eczema	2	74	......	76	......	
	Impetigo	3	70	......	73	3	
	Psoriasis	......	8	......	8	2	
	Herpes	......	12	......	12	1	
	Zona...	......	......	......	......	......	
	Pemphigus	......	9	......	9	......	
	Carbuncle	......	26	2	26	1	
	Furunculus	......	18	......	18	2	
	Paronychia	......	6	......	6	......	
	Lupus	......	......	......	......	......	
	Ulcus	10	364	1	374	10	
	Carried over ...	786	13,406	1,080	14,192	806	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal College of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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‡ The figures in the column to be carried on to the next year's Return.

RETURN OF DISEASES AND DEATHS IN 1900 AT THE PUBLIC HOSPITALS, MAURITIUS.

	Diseases.	* Remaining at end of 1899.	Yearly-Total.		† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
			Admissions.	Deaths.			
	Brought forward... ...	786	13,406	1,080	14,192	806	
LOCAL DISEASES.	Ecthyma, Icthyosis, Lichen, &c..	14	20	......	34	......	
	Injuries :—						
	General. Burns	......	30	3	30	1	
	General. Lightning Stroke ...	......	......	......	......	......	
	General. Asphyxia	......	1	1	1	......	
	Other injuries. Shock	......	1	1	1	......	
	Other injuries. Rupture of Spleen ...	......	2	2	2	......	
	Other injuries. Contusion	2	136	......	138	1	
Local Injuries.	Burns and Scalds	......	16	10	16	......	
	Bruise	1	221	5	222	3	
	Wound	9	475	2	484	17	
	Sprain	......	14	......	14	......	
	Dislocation	......	7	......	7	......	
	Fracture	5	94	4	99	5	
	Gunshot Wound	......	13	......	13	1	
	Concussion of and Lacerated brain.	......	6	3	6	......	
	Hæmorrhage	......	1	......	1	......	
	Surgical Operations :—						
	Removal of Tumors	......	19	......	19	......	
	Amputations	......	29	3	29	......	
	Excision and other minor operations.	......	198	2	198	......	
	Operations on blood Vessels : —						
	" of Eyes	......	64	......	64	......	
	" of Nose	......	2	......	2	......	
	" of Ear	......	4	......	4	......	
	" of Mouth	......	6	......	6	......	
	" of Skull	......	......	......	......	......	
	" of Chest	......	16	......	16	......	
	" of Abdomen	......	35	1	35	......	
	" of Liver	......	6	2	6	......	
	" of Bladder	......	2	1	2	......	
	" of Urethra	......	30	......	30	......	
	" of Rectum and Anus ...	......	32	......	32	......	
	Application of Forceps	......	7	1	7	......	
	Carried over	817	14,893	1,121	15,710	834	

The form shows in the main the arrangement of diseases in the nomenclature of the Royal Collage of Physicians, 1896 Edition. To save space, the unimportant diseases of any class can be grouped in their places as " Other Diseases " of the class.

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RETURN OF DISEASES AND DEATHS IN 1900 IN PUBLIC HOSPITALS, MAURITIUS.

Diseases.	* Remaining at end of 1899.	Yearly-Total.		† Total cases treated.	‡ Remaining at end of 1900.	Remarks.
		Admissions.	Deaths.			
Brought forward... ...	817	14,893	1,121	15,710	834	
Malformations:—						
Head	......	......	......	......	......	
Thorax	... ..	......	......	......	......	
Abdomen	......	......	......	......	......	
Upper limb	......	2	......	2	......	
Lower limb	......	1	......	1	......	
Poisons:—						
Mineral	......	5	4	5	......	
Vegetable	......	7	6	7	......	
Animal	......	......	......	......	......	
Parasites:—						
Tape Worms	......	8	......	8	......	
Round Worms	......	17	......	17	......	
Thread Worms	1	10	......	11	......	
Itch	4	146	......	150	1	
Bilharzia Hæmatobia (Endemic Hæmaturia)	......	5	......	5	......	
Other diseases: including new born, still-born and premature birth...	1	355	21	356	1	
Total... ...	823	15,449	1,152	16,272	836	

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Annexure A.

ANNUAL MEDICAL REPORT ON THE CENTRAL PRISON OF PORT LOUIS FOR THE YEAR 1900.

Observations on the sanitary condition of the Prison of Port Louis and on the prevalence of sickness in the different seasons of the year.

1.—The sanitary state of the Central Prison of Port Louis during the year 1900 was hardly less unsatisfactory than the preceding year, as is shown by the following table, which gives the proportion of sick in hospital to the daily average number of Prisoners for the last four years.

TABLE I.

Year.	Ratio of sick per mille of daily average population of the Prison.
1897	60.1
1898	78.1
1899	124.3
1900	110.3

2.—As I had occasion to explain in last year's report, this high rate of sickness is not attributable to any cause connected with Prison life, but is in a large measure due to the fact that many prisoners (6.2 per cent. in 1900) enter the Establishment in a diseased condition which necessitates immediate admission into hospital. Out of a total of 1,033 hospital admissions no fewer than 390 consisted of newly convicted or remanded prisoners. In fact 37 per cent. of the hospital cases were imported from outside. The proportion in 1899 was a little higher, to wit: 40 per cent. As it would, I think, be interesting to contrast in a tabular statement the diseases thus introduced into Prison with those contracted inside the Institution itself, I have, this year, prepared the following table which shows at a glance the complaints that really prevailed in the Port Louis jail in 1900.

TABLE II.

Diseases.	No. of cases among newly admitted prisoners.	No. of cases among prisoners undergoing sentence.	Total.
Malaria	39	197	236
Dysentery			
(a) Acute	5	69	74
(b) Chronic	2	0	2
Anæmia	20	9§	29
Debility	19	7§	26
Leprosy	3	0	3
Gonorrhœa	10	2*	12
Syphilis	3	4*	7
Diseases of Respiratory System			
Asthma	10	19	29
Bronchitis	70	93	163
Phthisis	11	3	14
Pneumonia	1	7§	8
Laryngitis	1	1	2
Diseases of the Digestive System	17	116	133
Diseases of the Lymphatic System			
(a) Hypertrophy of spleen	27	9	36
(b) Adenitis	1	0	1
Diseases of skin	76	41	117
Diseases of Urinary System			
(a) Nephritis	7	2	9
(b) Hæmaturia (origin unknown)	1	0	1
Other diseases	67	64	131
	390	643	1,033

The figures of the first column comprise only prisoners sent to hospital within 24 hours after their admission into Prison. The cases in the second column marked with an asterick (*) and many of those marked thus § were in reality imported but were treated for a time as outdoor cases previous to admission into hospital.

It results from the above table that such diseases as Anæmia, Debility, Chronic Dysentery, Leprosy, Nephritis, Enlarged spleen and Venereal affection did not originate in the Prison but were almost exclusively imported. The majority of the cases of skin diseases and a large proportion of the respiratory affections were likewise found among the new comers. The prevailing diseases of this Prison were in reality :— Malarial Fever, Acute Dysentery, diseases of the Alimentary System and Broncho-pulmonary diseases.

3.—The following is a general comparative statement of sickness and mortality for 1899 and 1900 :—

TABLE III.

Daily average population of the Prison.		Total No. of admissions to hospital.		Daily average No. of admissions to hospital.		Ratio per mille of daily admissions to average population.		No. of deaths.		Death-rate per mille of average population.	
1899	1900	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900
233.1	235.85	1119	1033	3.06	2.77	13.1	11.7	11	10	47.1	42.2

This table shows in 1900 a slight improvement over the preceding year in both sickness and mortality.

4.—Table IV gives the prevalence of sickness and the relative mortality in the different seasons of the year.

TABLE IV.

Quarters.	Daily average population.	No. of admissions into hospital.	Daily average No. of admissions into hospital.	Ratio per mille of admissions to population.	No. of deaths.	Ratio per mille of deaths to population.
1st. Quarter ...	236.59	276	3.06	12.8	1	4.2
2nd. " ...	260.73	304	3.3	12.6	3	11.5
3rd. " ...	247.67	258	2.8	11.3	3	12.1
4th. " ...	198.2	195	2.1	10.5	3	15 2

According to this table, the worst quarter of the year as regards sickness was the second and as regards mortality the fourth.

5.—The next table gives the comparative prevalence of the chief diseases in the four quarters of the year for the last two years.

TABLE V.

Quarters.	Total No. of Patients.		Malaria,		Respiratory diseases.		Diseases of Digestive System.		Dysentery.		Anæmia.		Debility.		Influenza.	
	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900
First	261	292	102	80	37	28	41	27	17	12	8	10	1	14	...	...
Second	369	304	147	96	53	58	30	29	22	20	18	10	14	4	34	14
Third	253	258	39	33	60	42	34	44	10	29	22	5	15	8	1	...
Fourth... ...	236	195	57	27	36	35	31	34	12	15	15	6	14	3	...	...
Total ...	1119	1049	345	236	186	163	136	134	61	76	63	31	44	29	35	14

Malaria prevailed in the first two quarters, though to a less extent than the preceding year. Respiratory diseases were chiefly found in the second and third quarters, which correspond to the winter season, but Influenza was met with solely in the second quarter. Dysentery and Gastro-intestinal affections, as usual, occurred more or less throughout the year but had a marked tendency to predominate in the third quarter. Anæmia and Debility were chiefly complaints of Stipendiary Court prisoners; the majority of whom consist of vagrants and deserters from Sugar Estates.

Remarks on the particular diseases that have occurred during the year. Their general character as to mildness and severity.

6. *Malaria.*—There was in 1900 a sensible decrease in the prevalence of Malaria as can be seen from the following comparative statement:

TABLE VI.

Clinical Types.	Cases.		Deaths.	
	1899	1900	1899	1900
Intermittent.				
Single attacks...	121	138	...	...
Quotidian	181	61	...	...
Tertian	14	11	...	...
Quartan	11	2	...	...
Irregular	6	8	...	...
Not diagnosed	...	4	...	...
Remittent	10	12	...	1
Pernicious	2	0	1	...
Total...	345	236	1	1

The majority of the cases were characterised by single attacks of a few hours' duration which did not recur, no doubt owing to the timely administration of Quinine.—In the quotidian cases, the fits were, as usual, mild and seldom more than two in number. The Tertian and Quartan cases were with but two or three exceptions likewise benign. All the remittent cases were more or less severe. One of these ended fatally. The patient had been originally admitted to hospital with Primary Syphilis, Anæmia, Debility and Albuminuria and was already in a precarious condition when the febrile symptoms set in.—He became an easy prey to the disease and proved refractory to every treatment.—None of the malarial cases that came under my notice in 1900 assumed the pernicious character.

On the whole, the Port Louis jail, when compared with other parts of the Town, cannot be considered a malarious locality. The soil is kept, as far as possible, dry and does not apparently afford a suitable breeding medium to mosquitoes. Chronic enlargement of the spleen, of malarial origin, is very rarely to be found among the inmates of the Establishment in the course of their imprisonment. It is, on the contrary, as stated above, a disease almost exclusively imported from outside.—Out of a total of 36 cases of this nature, at least 29 were introduced by newly-admitted prisoners.

7. *Plague.*—In spite of the existing epidemic, the Prison of Port Louis was in 1900 practically free from plague, as it was in the preceding year.—Only one case occurred, and this, under mysterious circumstances.—The patient was a Felon who had been in Prison for the last four or five years, who worked as a shoemaker within the precincts of the Prison and who on no occasion had left the Prison premises. He was admitted to hospital in the evening of the 22nd. of November with strong fever and vomiting and presented at the time on the left buttock a blackish pustule of about the size of a ten-cent piece in the centre of an area of hard and inflamed tissue, extremely painful to the touch.—In the left inguinal region there was an enlarged lymphatic gland likewise very sensible. When I saw the patient again on the following morning, the temperature had kept high (40 ° C.), the pustule had become somewhat larger and was now surrounded by a number of minute vesicles. An inflamed lymphatic vessel could be distinctly seen as a red line extending from the pustule to the inguinal gland.— In fact, at first sight, the case looked like one of Anthrax or Malignant pustule.—To clear all doubts, I asked the Acting Sanitary Warden, Dr. Barbeau, to examine the patient with me. The vesicles were punctured and the bacteriological examination which was made of the contents revealed therein the presence of Plague Bacilli. The true nature of the disease being thus conclusively established, the patient was at once removed to one of the Plague hospitals, where, I understand, he died two or three days after.—The hospital was thoroughly disinfected, all the inmates of the Prison were inoculated with Yersin's serum in prophylactic doses, and, for about six weeks, convicted prisoners from all parts of the Island were sent direct to Beau Bassin and had not as heretofore to be previously admitted into the Port Louis Prison. I am glad to say that no fresh case occurred. In spite of the most careful inquiry, it has not been possible for us to trace out the origin of this solitary case.—The prisoner never worked outside the Prison and had not, to all appearances, been in contact with contaminated objects. Moreover there was no mortality among rats in the Establishment.

8. *Dysentery.*— There were in 1900 seventy-six cases of Dysentery as compared with sixty-one in 1899—They were classified as follows :—

Acute Dysentery 74 cases.
Chronic „ 2 „

The death-rate from Acute Dysentery was nil. All the cases recovered rapidly under the saline treatment (i.e. Sulphate of Magnesium or Sodium) which, in my practice, has, for the last three years entirely superseded the old classical Ipecac : treatment, with very satisfactory results. The saline treatment, as reported on previous occasions, fails in chronic cases. Of the two patients thus affected in 1900 one died a few days after admission and the other was discharged from Prison, temporarily relieved.

9. *Influenza.*—There were in 1900 only 15 cases of Influenza, as compared with 32, in 1898 and 35 in 1899. Nearly all the cases had a mild character and readily yielded to treatment. One case however ran an exceptionally severe course and was characterised by hyperpyrexia and Capillary Bronchitis. In five days the temperature fell to 37.5° C. and marked signs of improvement were detected. Unfortunately the patient, evading the vigilance of the Warder, committed the imprudence of stripping himself of his shirt and lying on the cold floor. The immediate consequence was a relapse of the dangerous symptoms which carried him off in two days.

10. *Leprosy.*—Three men suffering from leprosy were sent to the Prison in 1900. They were transferred to St. Lazare Leper Asylum shortly after their admission. In the three cases the disease was of the anæsthetic variety.

11—*Insanity*, Two cases of Insanity, viz : one of Mania and one of Dementia, none of which occurred during imprisonment came under notice last year. Both prisoners entered the Establishment with symptoms of mental derangement and were transferred to the Lunatic Asylum shortly after their admission.

12.—*Diseases of the Respiratory system.*

COMPARATIVE STATEMENT FOR THE LAST TWO YEARS.

TABLE IX.

Return of diseases.	Cases.		Deaths.	
	1899	1900	1899	1900
Acute Laryngitis	1	2	...	...
Bronchitis				
(a) Acute	115	153	...	...
(b) Chronic	14	14	...	...
Pneumonia	11	8	2	1
Gangrene of the Lung	1	...	1	...
Pleurisy	1	...	1	...
Asthma	35	29	...	...
Phthisis	8	15	1	3
	186	221	5	4

There was in 1900 a greater prevalence of Bronchial catarrh than in the preceding year. The cases were for the most part mild ones. The death-rate from Pneumonia was lower than usual, only one out of eight cases proving fatal. The treatment adopted consisted in the administration of Quinine in 10 grain doses three times a day, of stimulating expectorants and of moderate counter irritation. Blisters were rarely used and never in the early stages of the disease.

Pulmonary Tuberculosis numbers 15 in this year's return, as against 8 in 1899. In three of the cases only was the disease contracted in Prison, the remaining 12 being imported. The three patients in question were long-sentenced prisoners. Two of these suffered primarily from scrofulous enlargement of cervical glands and developed Phthisis several months after. One died and the other was released on pardon. In the third case, the left knee became first the seat of the tubercular lesion then the left wrist was affected and finally the left lung. The patient died after a very protracted illness. Of the 12 imported cases, one ended fatally shortly after admission. The others spent the whole of their sentence in hospital. In presence of this unusually large number of cases of Tuberculosis, I think it necessary to call the attention of Government to the expediency of providing for the separate location of prisoners labouring under this affection. The infectious nature of the disease being now an established fact, I consider that prisoners should be protected from the risks of transmission which takes place usually by the sputum. The Prison hospital of Port Louis with its imperfect ventilation and other sanitary deficiencies, which I have pointed out on several occasions, is altogether an unsuitable place for cases of this description. Besides, the presence in the ward under the existing circumstances of Phthisical patients in spite of antiseptic precautions constitutes a source of danger to the other patients. A special ward, should, I submit, be opened up in the Prison of Beau Bassin for the reception of Prisoners suffering from Tuberculosis when for some reason or other they cannot be released. In fact, measures should be taken for Tuberculosis similar to those adopted for Leprosy.

13. *Diseases of the Alimentary System.*

TABLE VIII.

	No. of cases.		Deaths.	
	1899	1900	1899	1900
Stomatitis...	70	34	...	...
Tonsillitis	5	9	...	...
Dyspepsia	1	13	...	...
Gastritis	2	3	...	...
Diarrhœa	47	47	...	...
Enteralgia	4	3	...	...
Piles	4	5	...	...
Other diseases	7	20	...	...
Total...	140	134	0	0

Stomatitis and Diarrhœa were, as usual, among the prevailing diseases of this Prison. In addition to the 34 hospital cases of Stomatitis, a larger number (viz: 94) of milder cases were treated as out-doors. This affection, as I pointed out on a preceding occasion, (Annual Report for 1899), occurs chiefly among long-sentenced prisoners and is, in my opinion, due to the prolonged use of salt-fish which is not always of the best quality. For some time past the bomly-fish has been substituted for the snook-fish; the change, I am afraid, has been for the worse. I reported on the subject in the course of last year and recommended that whenever salt-fish of superior quality is not procurable in the market, fresh fish or some other suitable article of diet be given instead. The question of selecting an appropriate substitute has since been under study but is not easy of solution seeing that salt-fish has been introduced into the Prison dietary not on account of its nutritive properties which are insignificant but because it acts as it were as an appetiser.

A step in the right direction has however recently been taken for since the beginning of the year it has been decided by a Government Order that the quantity of salt-fish be diminished from 45 grammes to 15 grammes and that instead of being issued roasted as heretofore it be served to prisoners as a chutny cooked with tomatoes or aubergines, onions and vinegar,

Diarrhœa, although still a common complaint, is now of far less frequent occurrence than it used to be many years ago, when a large proportion of the cases were due to malingering. With the means of observation at present at our disposal feigning of this affection cannot escape detection.

14. *Diseases of the Urinary System.*—There were nine cases of Nephritis of which no fewer than seven were among the imported diseases. All but one were relieved by milk diet supplemented by a course of treatment with Iron, Nux vomica and Digitalis.—The only fatal case was that of a long-sentenced prisoner who was admitted into hospital with hemiplegia that had come on suddenly during the night and who died from urœmia five months later.

15. *Diseases of the Skin.*— The majority of these cases (76 out of a total of 117) were found among new comers, chiefly vagrants and deserters from sugar estates.— The cutaneous affections that were most commonly met with were Scabies, Eczema, Ecthyma and old-standing ulcers that had been kept in by filth. In addition to the 14 severe cases of scabies treated in hospital, 120 slighter ones received out-door treatment. Prisoners affected with itch are kept isolated from the rest so that the disease does not spread among the inmates.

16. *Parasitic diseases.* — Besides itch the only parasitic disease that came under treatment in 1900 was Endemic Hæmaturia which is caused by the Bilharzia Hæmatobia. There were 5 cases of this nature in all of which the ova of the parasite were discovered in the urine under the microscope. None of the cases was severe. They were all relieved by Perchloride of Iron, Turpentine and diuretic injections.

17. *Accidents.*— The number of accidents was 15 as compared with 11 in 1899. The injuries sustained were all of a trifling nature, only two or three cases requiring hospital treatment.

18. *Surgical operations.*— No capital operation was performed in 1900. The operations were all minor ones such as Incision of abscesses and carbuncles tapping for hydrocele, circumcision, &c. The anæsthetics used were Cocaine and Chloride of Ethyl. The latter proved very valuable in many cases.

19. *Death returns and observations thereon.*— There were 10 deaths during the year out of a total of 1,849 patients. The hospital death-rate has been the lowest on record for the last 7 years as can be seen from the Table.

TABLE X.

Year.	Hospital death-rate.
1894... ...	10.2 per thousand patients.
1895... ...	29 ,,
1896... ...	27 ,,
1897... ...	12 ,,
1898... ...	14.8 ,,
1899... ...	9.8 ,,
1900... ...	9.5 ,,

20.—According to Table III, the death-rate of the male population of the Port Louis Prison was lower than the preceding year, viz :— 42.2 per thousand of the daily average strength as against 47.1 in 1899. The death-rate for the whole population of the Prison including female prisoners was still lower as there was no death among female prisoners.

TABLE XI.

Average daily No. of persons.		No. of deaths.	Death-rate.
Males	235.85	10	42.2
Females	12.42	0	0
Whole population of the prison	248.27	10	40.1

The death-rate for the whole Prison population of Port Louis was therefore 40.1, as compared with 43.8 in 1899.

21.—The following Table gives the relative mortality of the four quarters, as compared with the preceding year.

TABLE XII.

Quarters.	Average daily population.		No. of patients.		No. of deaths.		Death-rate per mille of average population.		Hospital death-rate per thousand patients.	
	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900
First Quarter.	250	236.59	318	292	2	1	8	4.2	7.6	3.5
Second ,, ...	258	260.73	364	304	1	3	3.8	11.5	2.7	9.8
Third ,, ...	206	247.67	255	258	2	3	9.7	12.1	7.8	11.2
Fourth ,, ...	217	198.20	213	195	6	3	27.6	15.2	25.4	15.3
Whole year ...	233.1	235.85	1,119	1,049*	11	10	47.2	42.2	9.8	9.5

* 1,033 admitted in 1900 and 16 remaining at the end of 1899.

22.—Statement showing the mortality from the prevailing diseases as compared with 1899.

TABLE XIII.

	Cases.		Deaths.		Death-rate (per cent.).	
	1899	1900	1899	1900	1899	1900
Malaria	345	236	1	1	.24	.42
Diseases of Respiratory System ...	186	163	5	4	2.6	2.4
Diseases of Digestive System ...	136	134	...	...	...	...
Dysentery	61	76	4	1	6.5	1.24
Influenza	35	14	...	1	...	7.1

23.—Tabular statement of causes of death, showing the number of fatal cases among newly admitted Prisoners.

TABLE XIV.

Causes of death.	Prisoners undergoing sentence.	Newly admitted prisoners.	Total.
Malarial Fever (Remittent)	...	1	1
Acute Pneumonia	1	...	1
Pulmonary Phthisis	2	1	3
Chronic Dysentery	...	1	1
Chronic Nephritis	1	...	1
Valvular disease of the Heart	...	1	1
Influenza	1	...	1
Syphilis	...	1	1
	5	5	10

This Table shows that only five prisoners died from diseases contracted in Prison. The remaining five were admitted into Prison with the diseases which caused their death.

To put it in a general statement, 6,265 prisoners entered the Prison of Port Louis in 1900.

Of these 390 had to be sent to hospital on their admission and 5 died.

24.—There was in 1900 one death from Judicial Hanging. This of course has not been included in the above returns.

F. A. ROUGET, M.B., C.M., Edin.,

11th. February, 1901.

Police & Prison Surgeon.

SPECIAL REPORT CONCERNING FEMALE PRISONERS.

	1899	1900
1. Average daily No. of female prisoners in Prison	17.93	12.42
2. „ „ „ „ „ hospital	3.32	2.09
3. Total of admissions into hospital from female Ward.		
(a) Female prisoners	101.	61.
(b) Children of female prisoners ...	23.	15.

Of the 76 hospital admissions, 14 women and 2 children had no appreciable disease but had nevertheless to be kept in hospital because children who were ill could not be separated from their mothers and *vice versa.*

Hence the total number of patients was :

Women ...	47
Children ...	13

The following is a general comparative statement of sickness and mortality for female prisoners for the years 1899 and 1900 :—

Daily Average population (female).		No. of admissions into hospital for actual sickness.		Daily average No. of admissions to hospital.		Ratio (per mille) of daily admissions to daily population.		No. of deaths.		Death-rate.	
1899	1900	1899	1900	1899	1900	1899	1900	1899	1900	1899	1900
17.93	12.42	89	47	.24	.12	13.3	9.6	0	0	0	0

This Table shows a marked improvement in the sanitary condition of female prisoners over the preceding year.

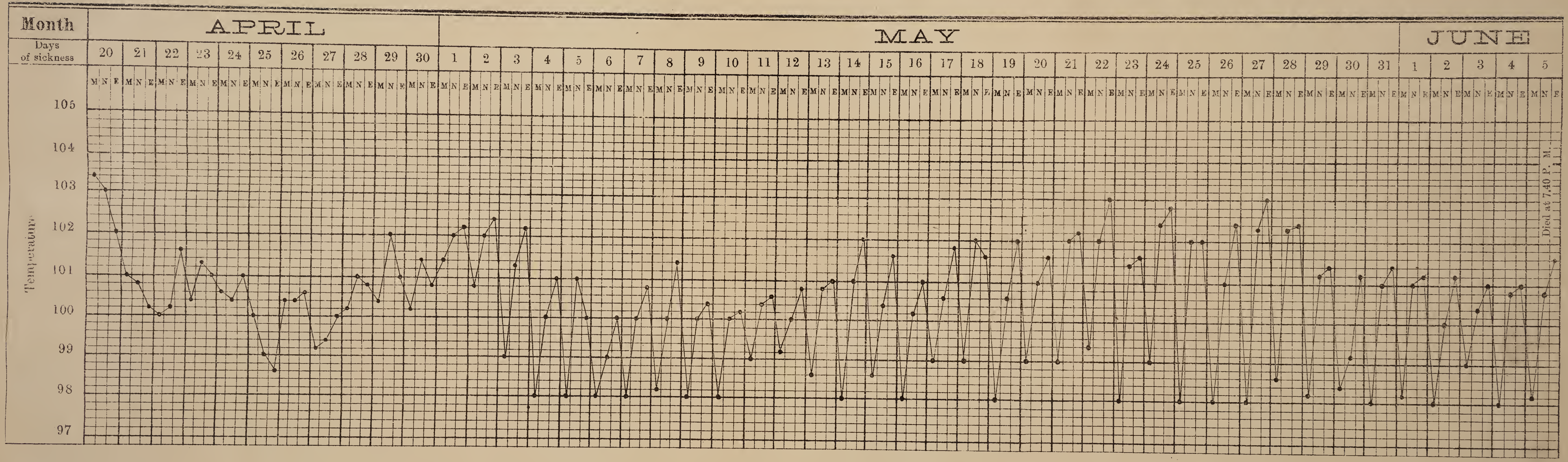
Return of diseases.	Women.	Children.
Malaria	14	3
Dysentery	3	...
Influenza	1	...
Rheumatism...	1	...
Anæmia	2	...
Debility	4	...
Leprosy	1	...
Vaccinia	...	1
Gestatio	1	...
Puerperium	1	...
Diseases of the Nervous system	2	...
,, ,, Respiratory system	7	7
,, ,, Digestive ,, ...	1	1
,, ,, Genito-urinary ,, ...	3	...
,, ,, Skin	4	1
Injuries	2	...
	47	13

The death-rate as in the preceding year was nil.

There was one case of confinement in which the labour was normal and the children were born alive.

F. A. ROUGET, M.B.,C.M.,Edin.,
Police & Prison Surgeon.

Name: — Veerasamy Mareeapen. Sex: — Male. Age: — 23½. Diagnosis: — Multiple Abscesses.



ANNEXURE B.

Notes on a case of multiple (cold) abscesses, probably of pyæmic origin, occurring spontaneously, without any apparent external cause, after dysentery and an attack of Intermittent fever.

Veerasamy Mareeapen, labourer, a Madrassee Immigrant, aged 22, admitted into the Lunatic Asylum on September 6th. 1898 for Mania subsequent to an attack of dysentery, appeared to be progressing favourably as regards his mental state, but until April 20th. 1899 he had several attacks of Intermittent fever of a quotidian type.

He was last admitted into the male infirmary of the Asylum on April 1st. suffering from the same form of fever and was discharged on the 3rd. apparently well. He was treated with sulphate of quinine and purgatives.

On April 20th, he was readmitted with fever. Temp. 103.4. From that day till he died on June 5th. his temperature rose daily, frequently to 103 at night with a morning fall to normal or nearly so.—(Vide chart appended).

On April 22nd, he complained of considerable pain in the region of the spleen. Lin. Iodi was applied ; but on the following day more or less swelling was noticed in the subcutaneous tissue of the left hypochondriac region. An incision was made but no pus found ; only a sanious reddish fluid escaped.

Patient was given Calomel, Dover's powder, Sodii sulphat : and quin : sulphat : gr. X twice a day. As he appeared to be weak he was ordered a stimulant mixture. The parts were dressed antiseptically.

On April 28th, several swellings, varying in size from a pigeon's egg to that of a hen, appeared in the following regions, viz : on each scapula (near the lower angle), in the interscapular space, in the left flank, in the right flank, on the inner aspect of the left arm along the course of the lymphatics.

April 29th, another swelling appeared on the angle of the lower jaw (right side of face). Patient is weaker, body slightly emaciated. Tongue somewhat furred, reddish. T. 101.1. No albumen in urine. Ung. Plumbi Iodid. C. belladonna applied to swellings. The latter are soft, slightly fluctuating, but not red or inflamed. They are tender on pressure. One of them (the original one) which had reformed was reopened near the incision made on the 23rd. and which had healed up, and the same sanious liquid was obtained. A microscopical examination revealed no suspicious bacteria nor any other abnormal element.

May 2nd, the swelling in the region of the left flank has considerably increased and extended along the intercostal spaces to the region of the spleen. Nothing abnormal noted in the lungs or liver, which is of normal size. Heart sounds free from murmurs. Patient still very weak. Stimulant treatment continued.

May 6th, one of the swellings (in the right flank) was aspirated to-day and some fluid yellowish pus found.

A streak-culture was made therewith on agar nutrient medium and incubated at 98. 4 F. This abscess and one on the angle of lower jaw as well as the large one in the left flank were opened and the same kind of pus escaped. They were dressed antiseptically.

May 7th. The culture tube was examined to-day—and a colour of staphylococcus pyogenes albus and one of staph. gr. aureus noted. This was confirmed by microscopical examination. No other organisms were found.

The large abscess in the left flank still discharges, the two others opened doing well. General condition of patient has slightly improved. He sleeps better, takes more nourishment.

May 10th. A deep abscess has now appeared in the right gluteal region, opened to-day. About half a pint of fluid pus escaped. Skin on surface of these abscesses normal.

The original swelling in the left hypochondriac region which had gone down has again increased in size.

An incision in the same now allowed some pus to escape Drainage tube inserted.

May 13th. Abscesses opened behind left arm, about the size of a hen's egg.

May 16th. Abscess opened in right suprascapular region of the same size as last.

Patient very emaciated. Sleeps badly ; but takes his nourishment fairly well. Mixt. Pot. Bromid : given at night.

May 18th. Abscess opened in left flank, below the large one previously opened, which had almost healed up.

May 21st. Opened an abscess behind right shoulder (below the one already opened and now closed up) ; also a large one in the left gluteal region. Latter very extensive.

May 25th. Matter has formed in the left axilla, in region of the large abscess originally opened. Mixt. Vini gallici now given.

May 26th. Abscess opened in front of right shoulder, and on left side of epigastric region. The last one probably originated by extension from the one opened in left hypochondriac region.

May 31st. Patient is suffering from diarrhœa. Pulv. Benzo-naphthol and pulv. cutæ aromat—aagr X ordered 3 times a day.

June 5th. Patient died exhausted at 7.40 p.m.

Post-mortem Examination.

Body emaciated. Rigor mortis present. There are cicatrices in the skin over the angle of the lower jaw, right side, and in right hypochondriac region. Nearly all the other abscesses opened have still fistulous openings. Those in the gluteal regions when cut into show a sloughy tissue with no signs of repair. The one in the left hypochondriac region still contains some pus which has burrowed under the cartilage of the ribs.

On opening the chest the front of the diaphragm in this region is found to be somewhat inflamed and discoloured. The inflammation had not however spread to the pleura on one side or to the peritoneum on the other. The lungs were partly adherent to the chest walls by old adhesions between the corresponding surfaces of the pleura. They were congested and œdematous at their bases (hypostatically). Otherwise normal.

Heart flabby, contained soft decolorized clots in both ventricles. Valves normal. Liver slightly enlarged. No abscesses found in its interior. Spleen enlarged, of dark bluish colour externally. Soft and dark on section, presenting the appearances found after attacks of malarial fever. Kidneys congested, otherwise normal. Stomach and intestines pale. No enlarged glands in mesentery. Brain slightly congested. No other abnormal lesion.

Remarks.

The interest of this case lies in the great number of abscesses which formed in various regions of the body after dysentery and intermittent fever in a patient who had recently been suffering from mania. As there was no abrasion of the skin or any other source of local irritation to account for the formation of these abscesses one must come to the conclusion that they were of spontaneous origin. They occurred in the loose subcutaneous cellular tissue in regions where lymphatic glands are seldom met with, while the usual sites of the latter were avoided.

The staphylococcus pyogenes aureus and albus being the only micro-organisms found in the pus, the formation of the abscesses must be attributed to their presence ; and their dissemination through the lymph stream and the blood, favoured by the lowered vitality of the tissues from the antecedent attacks of dysentery and malarial fever, no doubt brought on the formation of these multiple abscesses.

This case was also interesting at its early stage from the diagnostic point of view. Plague was prevalent at the time in the Colony and a few cases had recently occurred in the village not far from the Asylum, Had the observed swellings been first seen in the usual regions, viz : the groin, axillæ or anterior triangles of the neck, there is no doubt that, without a bacteriological examination of their contents, it would have been almost impossible to diagnose the case with certainty.

J. I. PADDLE, M. D.,

30th. January, 1901.

Medical Superintendent,
Lunatic Asylum.

Annexure C.

REPORT OF THE ADDITIONAL MEDICAL INSPECTOR AND ACTING SANITARY WARDEN ON THE SANITARY CONDITION OF THE ISLAND IN 1900.

There was no improvement in the sanitary condition of the Island in 1900 as the following figures will show :—

Death-rate.

Year.	Death-rate per 1,000.
1897	29.5
1898	31.9
1899	34.8
1900	35.7

The diseases which gave rise to the highest mortality were :—

Diseases.	Percentage on total deaths.
Malarial fever	34.5
Debility (sic)	8.9
Phthisis (including consumption and tuberculosis)	6.1
Pneumonia	5.7
Bronchitis	5.2
Dysentery	5.0
Plague	4.4
Whooping Cough	3.2
Diarrhœa and Enteritis ...	2.7
Influenza	1.7
Child-birth and sequelæ ...	1.24

The district death-rate was generally higher than in 1899 and two preceding years as the following statement will show :—

Districts.	Death-rate per 1,000 per annum.			
	1897.	1898.	1899.	1900.
Port Louis	40.4	48.5	65.5	53.4
Pamplemousses	29.6	34.1	36.6	37.3
Rivière du Rempart ...	22.0	25.1	26.7	28.9
Flacq	26.6	31.1	27.9	32.7
Grand Port	33.9	29.9	29.5	32.0
Savanne	27.2	20.7	27.9	26.5
Plaines Wilhems ...	27.3	30.9	31,0	36.9
Moka	22.8	26.8	25.3	29.0
Black River	28.4	29.9	33.3	40.3

The comparatively high death-rate registered at Rivière du Rempart is due to the prevalence of Plague, 95 cases of this disease having terminated fatally there last year. The high mortality of Port Louis as compared with 1897 and 1898 is also to be attributed to the same cause, 293 deaths having occurred from that disease—as also the rate obtained at Pamplemousses and Plaines Wilhems 63 and 104 deaths having been declared as due to that cause.

Malarial fever which caused 53.2, 53.9, and 34.5 per cent. of all deaths in 1897, 1898 and 1899 was responsible for 34.5 o/o in 1900. In this respect there was no improvement.

The number of deaths from diarrhœa was 376 and from dysentery 684 an increase in the former of 95 and a diminution in the latter of 6.

The reappearance of Influenza and Whooping Cough in epidemic form in some of the districts gave rise to a considerable number of cases of Bronchitis and Pneumonia.

In 1899, 33 deaths were ascribed to Whooping Cough, 445 were declared in 1900 and Influenza was responsible for 170 deaths. Bronchitis and Pneumonia killed 1,496, an increase of 19 over the number registered in 1899 and of 650 over that of 1898.

Tuberculosis, including Phthisis and Consumption gave rise to 841 deaths or 6.1 of the total number, against 681 and 418 respectively for 1899 and 1898. This is no doubt partly due to the more efficient control of causes of death within the last two years.

This tends to show a terrible progressive and steady increase, the figures standing thus in their proper order, 418, 681, 841—the number having doubled in two years.

On the other hand it is satisfactory to note that the mortality from Plague showed a considerable fall, 600 deaths having been declared against 1,117 for the previous year.

The following table shows the percentage of mortality on total deaths produced by some of the most frequent and fatal diseases which came under notice in 1900 in the different districts :—

DISEASES.	DISTRICTS.								
	Port Louis.	Pamplemousses.	Riv. du Rempart.	Flacq.	Grand Port.	Savanne.	Plaines Wilhems.	Moka.	Black River.
Malarial Fever... ...	18.3	48.5	26.4	55.0	40.0	43.3	15.6	21.7	66.0
Pneumonia	8.11	2.77	4.55	2.73	6.4	6.1	9.5	1.4	0.65
Bronchitis	7.28	5,11	5.04	2.13	5.4	4,2	7.0	3.1	6.5
Dysentery	3,85	4.33	4.30	5.32	5.12	3.8	7.2	5.2	3.1
Tuberculosis	12.31	3.05	4.05	2.84	5.3	3,4	8.9	4.0	0.5
Plague	10.16	4.33	10.69	0.76	0.8	0.9	4,6	...	...
Whooping Cough ...	1.98	1.35	10.20	1.42	2.0	1.5	4.7	9.5	...
Influenza	0.7	3.3	1.4	1.6	0.42	0.4	1.3	7.2	1.6
Diarrhoea and Enteritis.	2.9	1,0	1.6	1.7	4.2	2.5	5.0	1.7	0.3

In Black River district was registered the heaviest percentage of deaths from Malarial fever, 66 o[o of total deaths, and in Plaines Wilhems the lowest, 15.6.

The highest percentage of Pneumonia was observed in Plaines Wilhems, 9.5, and the lowest in Black River, 0,65. Bronchitis scored the highest percentage with 7.8 in Port Louis.

Plaines Wilhems scored the highest percentage of deaths from Dysentery with 7.2, and comes second after Port Louis for Tuberculosis.

Rivière du Rempart tops the list for Plague with 10.69 and Port Louis next with 10.16.

The following table shows the death-rate among the two great classes of the population. The Indian population needs no definition, the general population includes all other nationalities :—

Districts.	General population.	Indian population.
Port Louis	44.5 o[oo.	68.6 o[oo.
Pamplemousses ...	37.8	37.2
Rivière du Rempart .	31.2	28.5
Flacq...	36.1	32.3
Grand Port	30.6	32.4
Savanne	25.5	26.8
Plaines Wilhems ...	36.2	37.4
Moka...	27.5	29.1
Black River	30.9	45.6

In three districts the Indian death-rate compared favorably with the general population rate, the reverse obtained in six.

The highest death-rate among the Indian population was observed in Port Louis and the lowest in Savanne—68.6 and 26.8 respectively.

Of the total population of Port Louis 19,996 are Indians and 34,012 belong to the general population.—Among the latter we find a fair proportion of comparatively well-to-do people who can afford, and do seek, medical advice. The Indian population of Port Louis are generally poor, seldom seek medical advice, even at the Dispensary where this is given to them gratuitously, they are besides highly superstitious and are easily influenced and led by their priests, so that they seldom resort to hospital.

The same remarks apply to the country districts, with this restriction however :— As a large proportion of the country Indian population is represented by indentured laborers working on sugar estates and receiving medical care and treatment the mortality among them is not so high as among those who are not permanently employed on sugar estates. The following table shows the death-rate among these two categories of Indians :—

Districts.	Indians not indentured.	Indentured Indians.
Pamplemousses	39.8	31.4
Rivière du Rempart ...	27.4	29.0
Flacq	34.4	29.1
Grand Port	35.2	28.1
Savanne	29.7	24.8
Plaines Wilhems... ...	38.4	21.6
Moka	35.2	21.5
Black River	49.2	33.6

The death-rate is uniformly lower in all districts among the Indians employed on sugar estates than among those outside—the only exception being in the district of Rivière du Rempart. This is easily explained by the occurrence of 90 odd fatal cases of Plague among the indentured laborers.

The death-rate for the total population for the whole Island was 35.7—this high figure is due, in great part, to sickness among the unindentured Indians who have left sugar estates to start for themselves. Of the total Indian population of 245,197 souls only 97,258 belong to sugar estates and enjoy the advantages of medical care and treatment and closer sanitary supervision as provided for by the Labor Law.

Wherever the free Indian population is considerably in excess as compared with the indentured the death-rate rises.

The following statement clearly establishes the fact :—

Districts.	Indian population on Estates.	Death-rate per 1,000 per annum.	Indian population out of Estates.	Death-rate per 1,000 per annum.
Pamplemousses ...	9,044	31.4	20,199	39.8
Riv. du Rempart ...	14,170	29.0	8,624	27.4
Flacq	19,469	29.1	28,913	34.4
Grand Port... ...	16,203	28.1	21,596	35.2
Savanne	17,192	24.8	12,270	29.7
Plaines Wilhems ...	5,760	31.6	32,671	38.4
Moka	13,219	21.5	16,171	35.2
Black River ...	2,201	33.6	7,495	49.2
	97,258	27.6	147,939	45.6

The natural outcome of the steady exodus from sugar estates, which has been going on for some years, consequent upon the parcelling out of numerous sugar estates, has been the creation of numerous hamlets and even villages inhabited entirely by old estate hands. These people only exceptionally seek for medical advice in case of illness—they are inimical to the teachings of sanitation and hygiene, live in insanitary dwellings, the surroundings of which they soon contaminate. In many of the localities where these Indian hamlets have crept up the scarcity of water is so great that these people, to avoid going long distances for a tolerably pure supply will often use the very worst of waters, brackish, or polluted by animal and vegetable matter. Under such conditions it is not therefore a matter of surprise to find such high death-rates among them as 49.2, 39.8, &c.

Three cases of Cerebro-Spinal Meningitis which terminated fatally were observed in 1900; two at Cannoniers' Point Quarantine station and the third at "Agrément" in the district of Moka. The disease was imported by New Immigrants. The three victims were, two New Immigrants and the third a laborer of the above mentioned station. Stringent precautionary measures were taken and the disease did not spread.

Malarial fever which, as a rule, has a period of latency lasting from May to December when it takes on activity, appeared last year much sooner than usual. In the district of Moka, one of the healthiest, if not the healthiest, the disease had taken on sudden extension as early as the month of November.

The explanation of this unusual behaviour on the part of this disease, is, I believe, to be found in the following climatic conditions which prevailed in the last part of 1900. After a severe drought lasting for several weeks, the streams of the Island had nearly all dried up, numerous puddles and pools of very slowly moving water being all that was left of these water courses ; the rivers had been reduced to the dimensions of streams and their banks were marked by countless puddles. Anopheles found therefore numerous and more widely scattered breeding places in which to deposit their ova and multiply in myriads.

When the heavy rains appeared towards the end of November the rivers overflowed, fresh streams came into existence where only dry gullies existed before. When the rains ceased the waters subsided and produced exactly similar conditions as obtained before the rains began.

Localities in the vicinity of these water courses were soon infected with Fever carrying mosquitoes and Malarial Fever soon became rife.

A striking example confirmatory of this theory is afforded by Rivière du Rempart district. This part of the Island, besides being very dry, has no water courses to speak of, the soil is volcanic and very porous. The percentage of deaths from Malarial Fever on the total mortality of this district was 26.4 while it was 48.5 and 55 o/o in Pamplemousses and Flacq districts which are intersected by numerous water courses, and which bound the first district on two sides.

Port Louis although badly drained is not afflicted with many suitable breeding grounds for Anopheles. The percentage of deaths from Malarial Fever was only 18.3.

In Moka district which adjoins Port Louis the Anopheles breeding grounds were multiplied to a considerable number after the heavy rains. The percentage of deaths from Malarial Fever was 21.7, higher than in Port Louis. This is accounted for, to a great extent, by the proper notification of causes of death which obtains now.

The water supply of the Island is still very bad in certain localities. It is well known to be so in Port Louis, Grand Port and Plaines Wilhems.

Intestinal diseases represent 2.9 o/o of the deaths in Port Louis, 4.2 in Grand Port, 2.5 in Savanne, 5.0 in Plaines Wilhems and 1.6 in Rivière du Rempart.

The source of the Port Louis supply is Grand River N. W. ; which has been dammed at a spot below the infall of all the rivers of Plaines Wilhems and Moka in which all the dirty linen of over 90,000 inhabitants are daily washed, so that the water supplied to the inhabitants of Port Louis is a decoction of all the filth derived from the above mentioned source, besides washings from adjacent freshly manured cane fields, refuse water from sugar factories which contain fermenting products derived from the sugar contained therein, and lastly the surface drainage of all the towns, villages and hamlets of Plaines Wilhems and Moka. This water is distributed to the consumers without previous filtration. As very few of them can afford a proper house filter the water is drunk as it is.

The water of Grand Port and Savanne is generally polluted by waste waters from sugar factories.

Rivière du Rempart derives almost the whole of its drinking water from wells, most of them very deep.

In Plaines Wilhems district, although pipes have been laid down for the distribution of Mare-aux-Vacoas water, many people still prefer to use river water which is polluted in the same manner as the Port Louis supply.

Before the outbreak of Plague in the Island, the Sanitary staff was composed of a Sanitary Warden, an Assistant Warden and seventeen Sanitary Inspectors for a population of 380,000 souls scattered over 700 square miles of country, in more than fifty townships and villages, over 130 estate camps and in numberless hamlets. Its stands to reason that a proper sanitary control could not be expected and, as a matter of fact, was not exercised.

As soon as Plague made its appearance the urgency of remedying the existing state of things was recognised and the staff was increased *pari passu* as necessity arose. The result was that insanitary conditions in buildings, especially in Port Louis, Beau Bassin and Rose Hill were at once detected and remedied to a large extent. Space, light and ventilation were provided wherever found deficient or absent; dampness removed, open air sewers properly paved, drains and privies repaired or reconstructed in accordance with the sanitary regulations and tenements unfit for human habitation were condemned or closed until they were improved and those past remedy were destroyed; overcrowding closely watched and suppressed. So that the Town, although far from being in quite a satisfactory state is notably improved. This no doubt explains the comparatively limited outbreak of Plague in Port Louis in 1900 — 293 deaths against 731 in the previous year.

While upon the question of the measures which have been taken to improve the sanitary condition of the Island it may not be out of place to say a few words upon the subject quarantine.

The quarantine laws of the Colony have proved up to now, so thoroughly vexatious and in part useless that the time has come when they should be recast and drawn up more in accord with past experience and scientific views.

As a matter of fact quarantine has up to now proved unscientific and a great obstacle to trade. Quarantine did not protect us from small-pox, measles, plague, dengue fever and other diseases which have visited us occasionally within the last 30 years.

It is one of those obsolete measures which were in favor years ago and which should now only be known as a thing of the past.

Here the law has fixed 15 days as the limit of quarantine for Plague. Experience has now shown without the shadow of a doubt that the incubation period of the disease never exceeds six days; that not a single case of Plague has ever been discovered in any of the vessels coming here from infected ports of India. Where therefore is the use of the fifteen days' quarantine?

Again if we had a proper law rendering revaccination compulsory in the Island, no quarantine would be necessary for small-pox.

This Island possesses two of the finest quarantine stations of the world perhaps. Cases of cholera detected upon any vessel arriving at Mauritius could be landed at one of them, the contacts isolated, without submitting the vessel to any quarantine beyond the time strictly necessary for the disinfection of the ship.

There will be no object then for any dishonest captain to deceive the Pratique Officer by concealing cases of sickness on board his ship, as the captain of the s.s. Pongola did in 1891. In those days the period of quarantine fixed for small-pox was 21 days! The captain of that steamer wanted coals. He intended staying forty-eight hours for that purpose. Had he declared the case of small-pox he had at that time on board, the sick would have had to be landed at Cannoniers' Point and the vessel kept in quarantine for 21 days before obtaining pratique. He deceived the Health Officer, entered the harbour, landed his sick man at night, took his coals and left before anything was known. This case was the first of an epidemic which cost the Colony close upon one million of rupees. If after landing his sick man the captain would have been admitted in quarantine between the forts, the probalities are that he would not have concealed him from the Pratique Officer.

Quarantine for small-pox should only be imposed upon infected ships—and the crew of a suspected vessel would have to be daily visited.—Passengers, if any, who would have been in contact with the sick kept in quarantine.

In conclusion we beg to state that this report is unavoidably incomplete as we have not been able to obtain the necessary information respecting the Sanitary Works undertaken and completed by the Surveyor General's Department during the year 1900.

John BOLTON,

Additional Medical Inspector.

L. G. BARBEAU,

Acting Sanitary Warden.

4th. June, 1901.